

=> ( staphylococcal superantigen-like proteins) and IgA

L8           0 FILE AGRICOLA  
L9           0 FILE BIOTECHNO  
L10          0 FILE CONFSCI  
L11          0 FILE HEALSAFE  
L12          2 FILE LIFESCI  
L13          0 FILE PASCAL

TOTAL FOR ALL FILES

L14           2 (STAPHYLOCOCCAL SUPERANTIGEN-LIKE PROTEINS) AND IGA

=> file .chemistry

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

12.41

12.63

FILE 'CAPLUS' ENTERED AT 15:51:16 ON 10 JAN 2010

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FILE 'BIOTECHNO' ENTERED AT 15:51:16 ON 10 JAN 2010

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=> ( staphylococcal superantigen-like proteins) and IgA

L15          2 FILE CAPLUS  
L16          0 FILE BIOTECHNO  
L17          0 FILE COMPENDEX  
L18          0 FILE ANABSTR  
L19          0 FILE CERAB  
L20          0 FILE METADEX  
L21          1 FILE USPATFULL

TOTAL FOR ALL FILES

L22           3 (STAPHYLOCOCCAL SUPERANTIGEN-LIKE PROTEINS) AND IGA

=> dup rem

ENTER L# LIST OR (END):L22

PROCESSING COMPLETED FOR L22

L23           3 DUP REM L22 (0 DUPLICATES REMOVED)

=> d 123 ibib abs total

L23 ANSWER 1 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2009:239830 USPATFULL  
TITLE: Set1 proteins and uses thereof  
INVENTOR(S): Fraser, John David, Auckland, NEW ZEALAND  
Langley, Ries, Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20090215195	A1	20090827
APPLICATION INFO.:	US 2004-594291	A1	20041207 (10)
	WO 2004-NZ317		20041207
			20070718 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	AU 2004-901570	20040324
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	OCCHIUTI ROHLICEK & TSAO, LLP, 10 FAWCETT STREET, CAMBRIDGE, MA, 02138, US	
NUMBER OF CLAIMS:	37	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Page(s)	
LINE COUNT:	1932	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of use of SET1 proteins or functional equivalents thereof. More particularly the invention relates to the use of SET1 proteins or functional equivalents thereof in procedure, for identification and/or isolation of IgA and the scrum complement factor C5.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L23 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:1353100 CAPLUS  
DOCUMENT NUMBER: 148:114632  
TITLE: Crystal Structures of the Staphylococcal Toxin SSL5 in Complex with Sialyl Lewis X Reveal a Conserved Binding Site that Shares Common Features with Viral and Bacterial Sialic Acid Binding Proteins  
AUTHOR(S): Baker, Heather M.; Basu, Indira; Chung, Matthew C.; Caradoc-Davies, Tom; Fraser, John D.; Baker, Edward N.  
CORPORATE SOURCE: Maurice Wilkins Centre for Molecular Biodiscovery, University of Auckland, Auckland, N. Z.  
SOURCE: Journal of Molecular Biology (2007), 374(5), 1298-1308  
CODEN: JMOBAK; ISSN: 0022-2836  
PUBLISHER: Elsevier Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Staphylococcus aureus is a significant human pathogen. Among its large repertoire of secreted toxins is a group of staphylococcal superantigen-like proteins (SSLs). These are homologous to superantigens but do not have the same activity. SSL5 is shown here to bind to human granulocytes and to the cell surface receptors for human IgA (Fc $\alpha$ RI) and P-selectin [P-selectin glycoprotein ligand-1 (PSGL-1)] in a sialic acid (Sia)-dependent manner. Co-crystallization of SSL5 with the tetrasaccharide sialyl Lewis X (sLeX), a

key

determinant of PSGL-1 binding to P-selectin, led to crystal structures of the SSL5-sLeX complex at resolns. of 1.65 and 2.75 Å for crystals at

two pH values. In both structures, sLeX bound to a specific site on the surface of the C-terminal domain of SSL5 in a conformation identical with that bound by P-selectin. Conservation of the key carbohydrate binding residues indicates that this ability to bind human glycans is shared by a substantial subgroup of the SSLs, including SSL2, SSL3, SSL4, SSL5, SSL6, and SSL11. This indicates that the ability to target human glycans is an important property of this group of toxins. Structural comparisons also showed that the Sia binding site in SSL5 contains a substructure that is shared by other Sia binding proteins from bacteria as well as viruses and represents a common binding motif.

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)  
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:153937 CAPLUS

DOCUMENT NUMBER: 142:353684

TITLE: The Staphylococcal Superantigen-Like Protein 7 Binds IgA and Complement C5 and Inhibits IgA-Fc $\alpha$ RI Binding and Serum Killing of Bacteria

AUTHOR(S): Langley, Ries; Wines, Bruce; Willoughby, Natasha; Basu, Indira; Proft, Thomas; Fraser, John D.

CORPORATE SOURCE: Centre for Molecular Biodiscovery, School of Medical Sciences, University of Auckland, Melbourne, Australia

SOURCE: Journal of Immunology (2005), 174(5), 2926-2933  
CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER: American Association of Immunologists

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The staphylococcal superantigen-like proteins (SSLs) are close relatives of the superantigens but are coded for by a sep. gene cluster within a 19-kb region of the pathogenicity island SaPI<sub>n</sub>2. RSSL7 (formally known as SET1) bound with high affinity (K<sub>D</sub>, 1.1 nM) to the monomeric form of human IgA1 and IgA2 plus serum IgA from primate, pig, rat, and horse. SSL7 also bound the secretory form of IgA found in milk from human, cow, and sheep, and inhibited IgA binding to cell surface Fc $\alpha$ RI (CD89) and to a soluble form of the Fc $\alpha$ RI protein. In addition to IgA, SSL7 bound complement factor C5 from human (K<sub>D</sub>, 18 nM), primate, sheep, pig, and rabbit serum, and inhibited complement-mediated hemolysis and serum killing of a Gram-neg. organism *Escherichia coli*. Thus, SSL7 is a superantigen-like protein secreted from *Staphylococcus aureus* that blocks IgA-FcR interactions and inhibits complement, leading to increased survival of a sensitive bacterium in blood.

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REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT